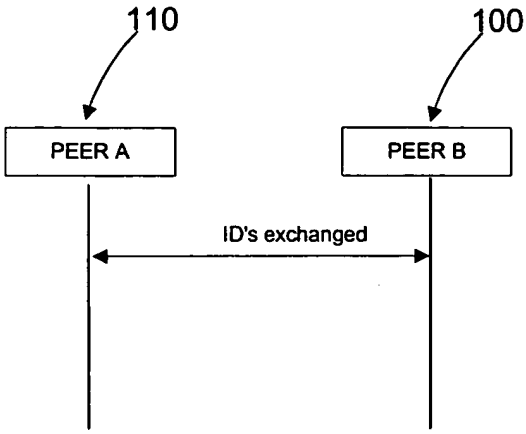

Figure 1

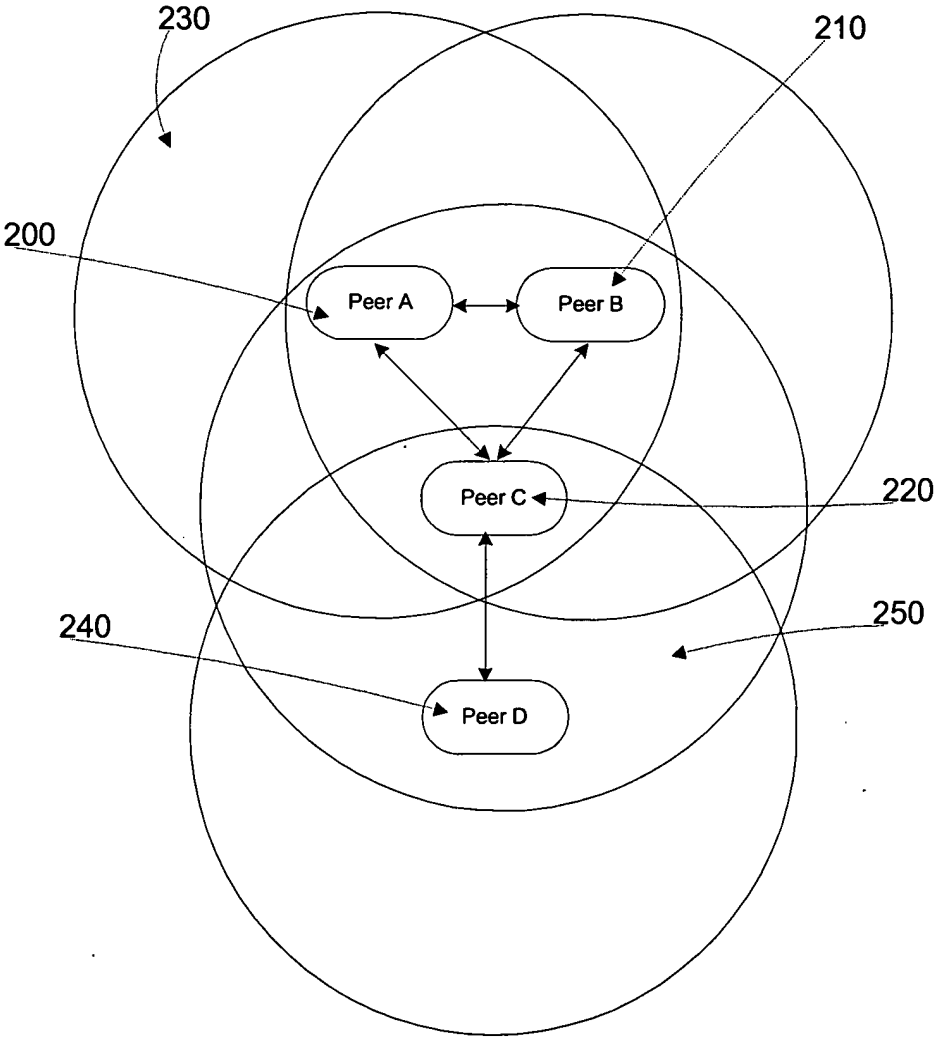

Figure 2

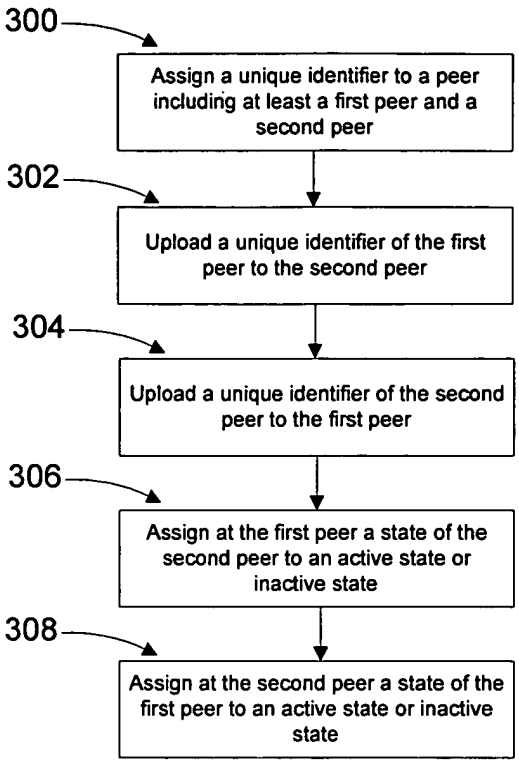
300
Assign a unique identifier to a peer including at least a first peer and a second peer
302
Upload a unique identifier of the first peer to the second peer
304
Upload a unique identifier of the second peer to the first peer
306
Assign at the first peer a state of the second peer to an active state or inactive state
308
Assign at the second peer a state of the first peer to an active state or inactive state

Figure 3a

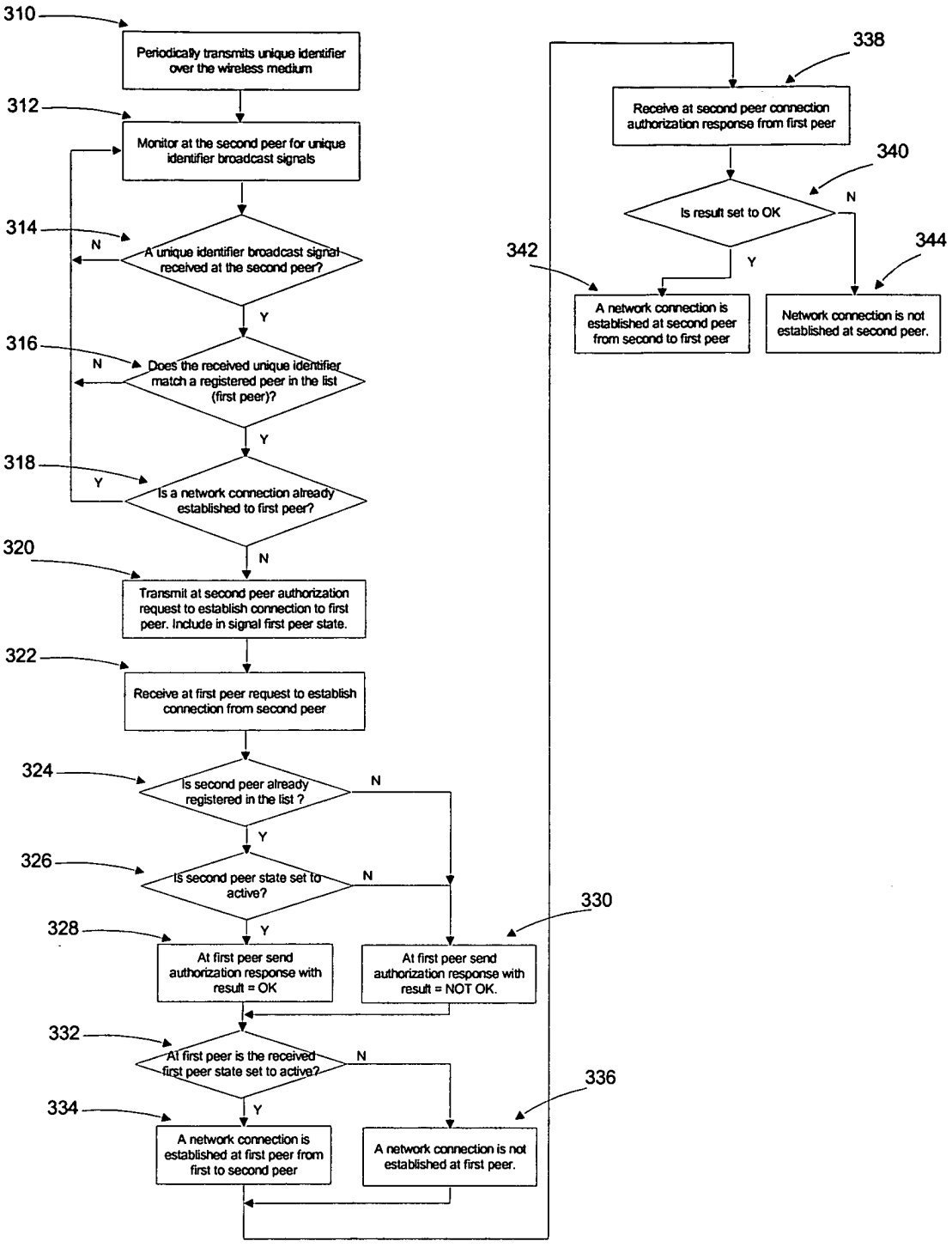
310
Periodically transmits unique identifier over the wireless medium
312
Monitor at the second peer for unique identifier broadcast signals
314
A unique identifier broadcast signal received at the second peer?
N
Y
316
Does the received unique identifier match a registered peer in the list (first peer)?
N
Y
318
Is a network connection already established to first peer?
Y
N
320
Transmit at second peer authorization request to establish connection to first peer. Include in signal first peer state.
322
Receive at first peer request to establish connection from second peer
324
Is second peer already registered in the list ?
N
Y
326
Is second peer state set to active?
N
Y
328
At first peer send authorization response with result = OK
330
At first peer send authorization response with result = NOT OK.
332
At first peer is the received first peer state set to active?
N
Y
334
A network connection is established at first peer from first to second peer
336
A network connection is not established at first peer.
338
Receive at second peer connection authorization response from first peer
340
Is result set to OK
N
Y
342
A network connection is established at second peer from second to first peer
344
Network connection is not established at second peer.

Figure 3b

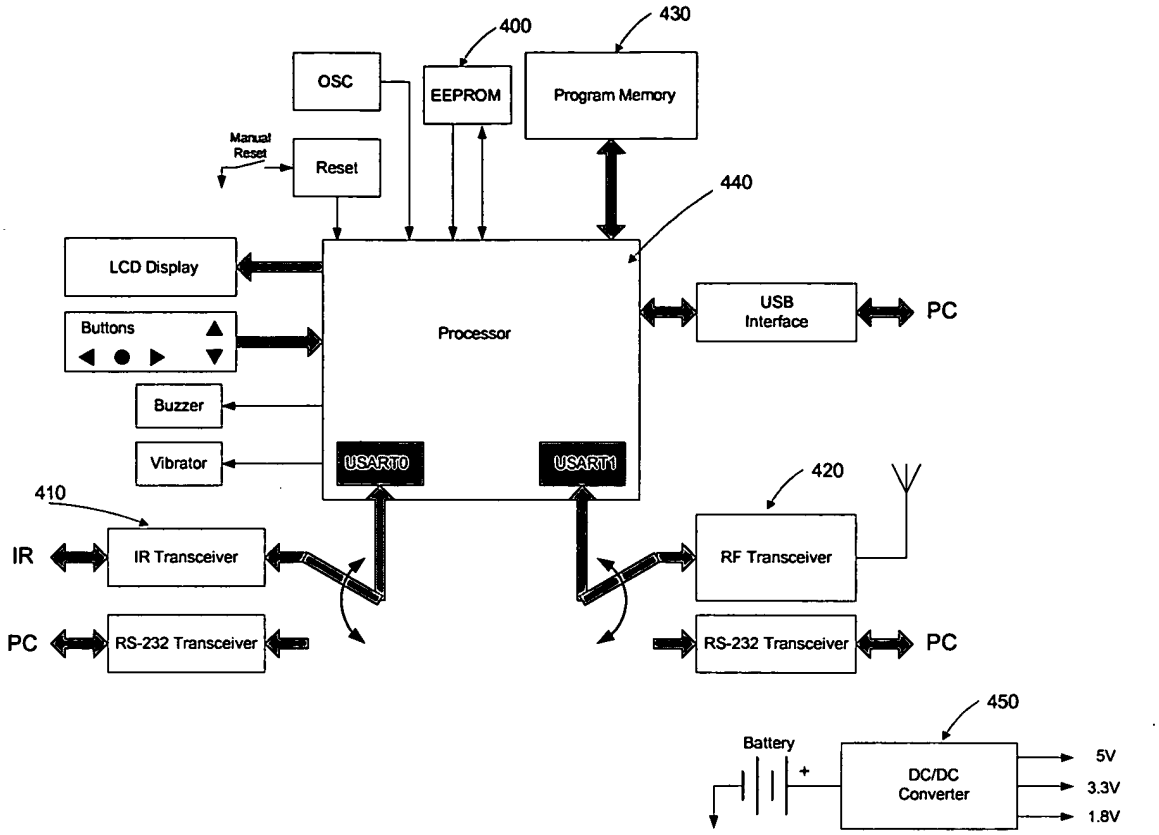

Figure 4

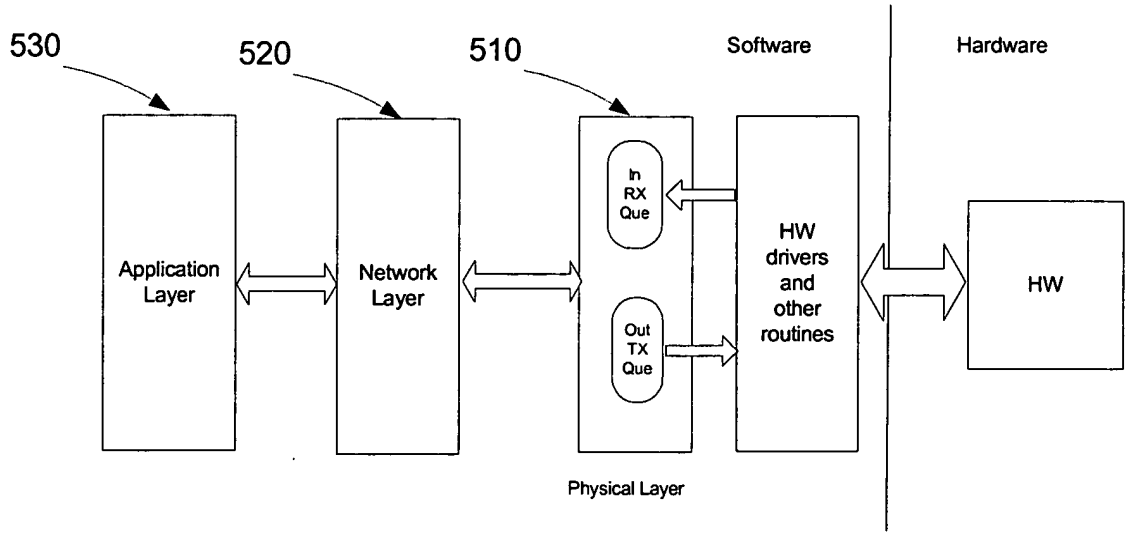

Figure 5

610 620 630

Method name	Param ters	Description
ServiceConnect	Destination ID, Service type	Opens a service connection to destination Buddy Finder for a specific service type.
ServiceClose	Service type	Closes currently open service connection.
Send	Data buffer, buffer length, transmission type.	Sends a data buffer with a specific length, the transmission type could be reliable or non reliable.
Receive	Data buffer, buffer length	Receives a buffer from the network with a specific buffer length
ServiceResult	Service type	Called by the network to notify the application for the last service operation result. For ServiceConnect: it indicates if connection has successfully established. For Send: It holds the result of sending the messages in reliable mode.
Broadcast	Service type, data buffer, buffer length	Used for broadcasting information to all peers within the range.

Figure 6

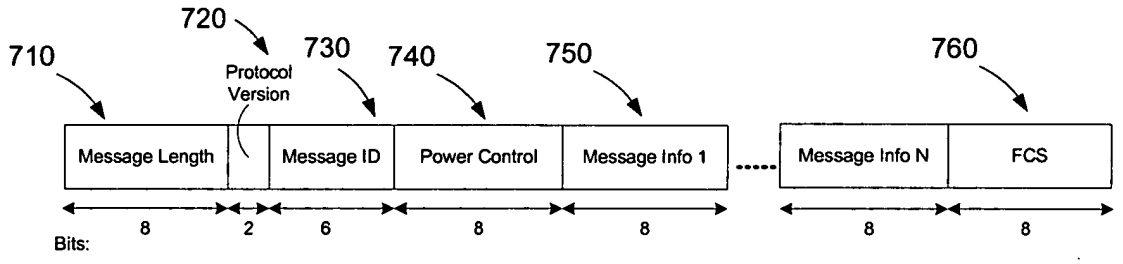

Figure 7

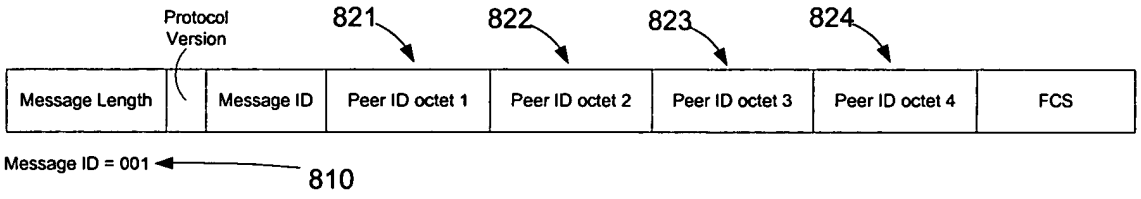

Figure 8

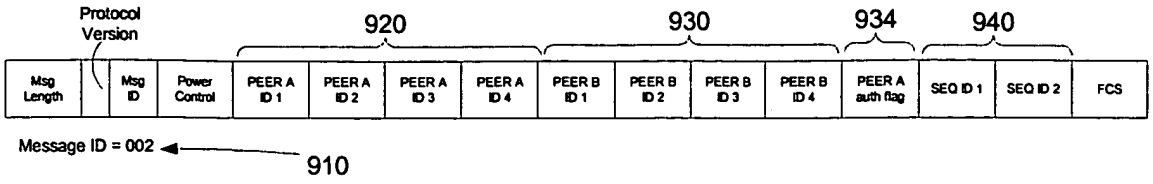

Figure 9

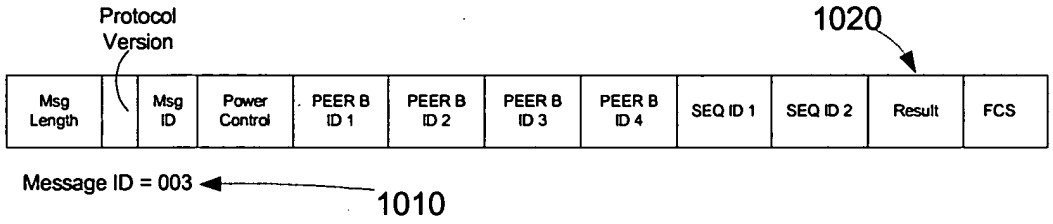

Figure 10

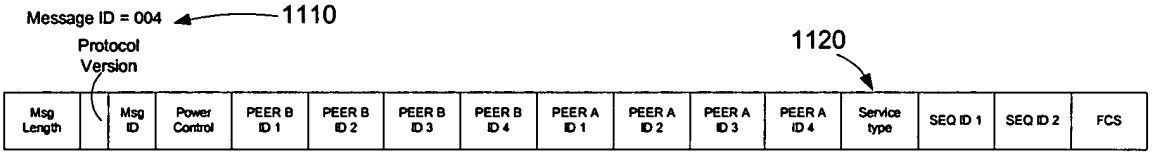

Figure 11

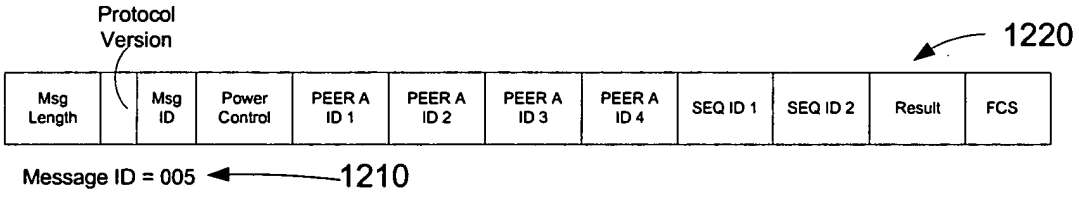

Figure 12

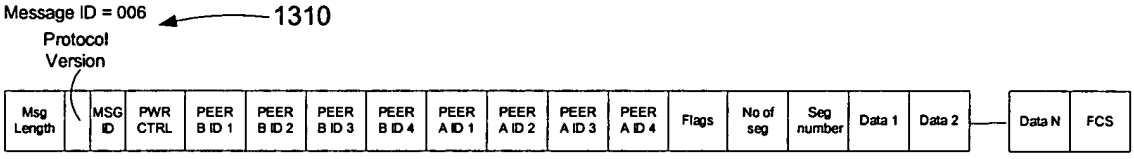

Figure 13

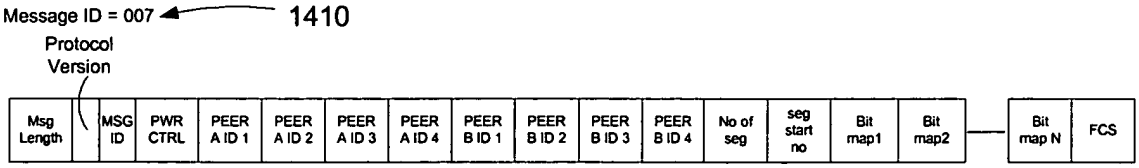

Figure 14

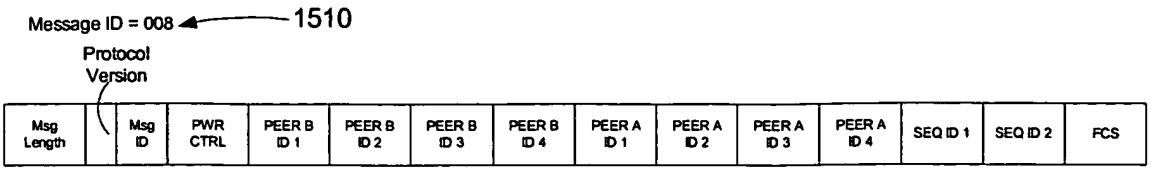

Figure 15

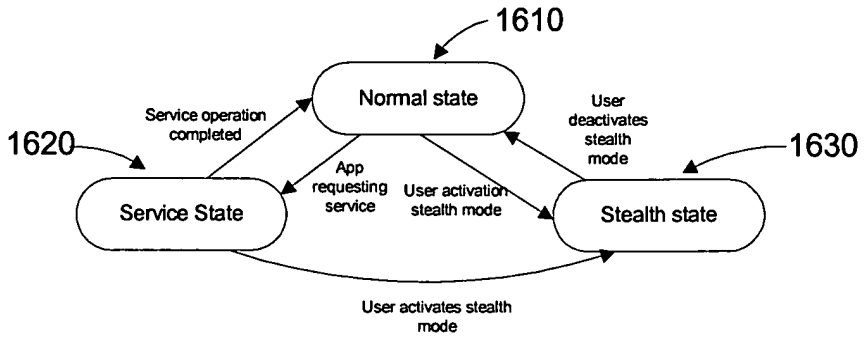

Figure 16

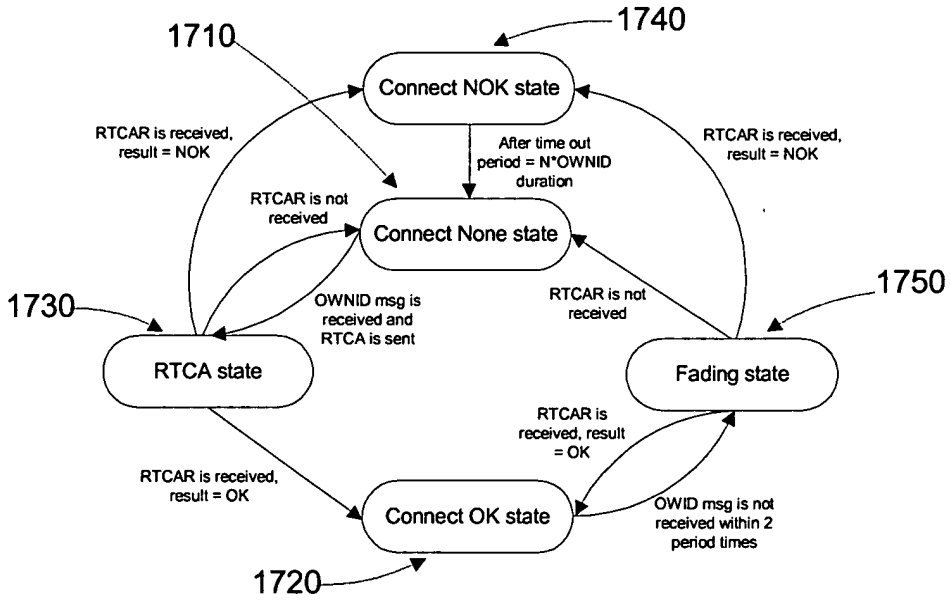

Figure 17

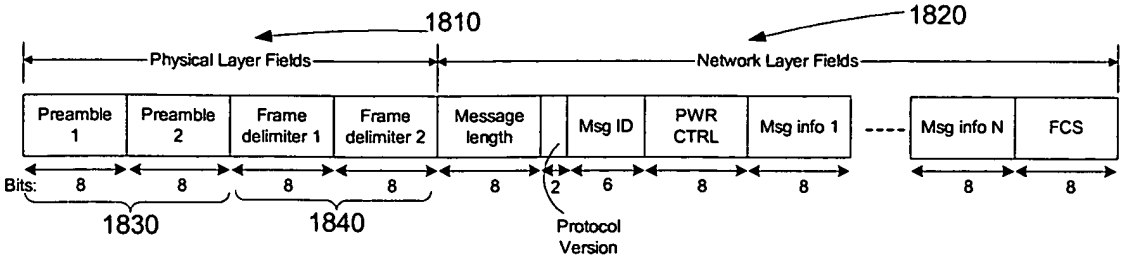

Figure 18

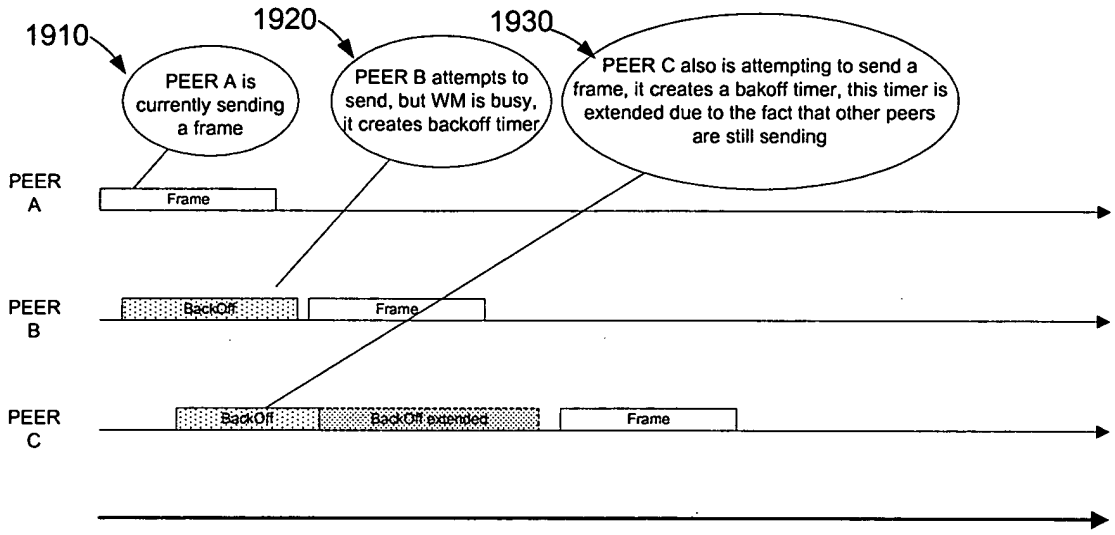

Figure 19

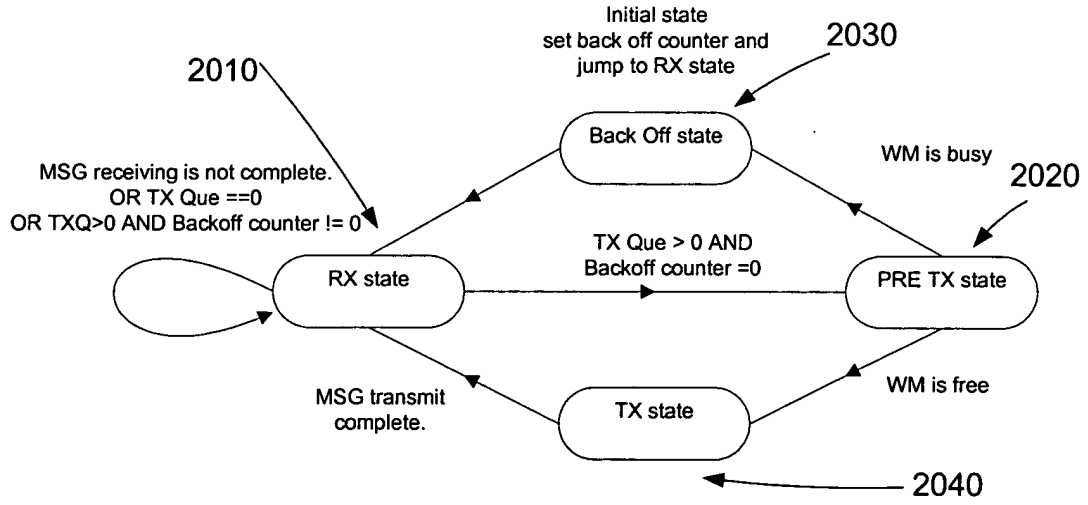

Figure 20